

MONTHLY WEATHER REVIEW,

MAY, 1873.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

STORMS.

During this month ten storms have traversed the country east of the Rocky Mountains. The accompanying map shows the paths of their centres:

I. *May 1, 2, and 3.*—Apparently originating on the last day of April in the Rocky Mountains, the centre of this storm progressed eastward over Kansas, Missouri, northern Indiana, southern Michigan, and Lake Erie, moving thence southeastward over Pennsylvania and Maryland to the Atlantic, sending out a branch on the 2d over Ohio, Virginia, Chesapeake Bay, and thence off the coast. Its passage was attended by heavy rains and brisk and high winds from the Mississippi to the Atlantic, sleet and snow falling in New England.

II. *May 4 to 8.*—Appearing first in southern Texas, this storm moved slowly northeastward over Arkansas, Missouri, Illinois, southern Michigan, and Lake Huron. The highest winds during its passage were experienced on the coast of Texas, the lower lakes, and the middle Atlantic coast.

III. *May 8 and 9.*—Developed among the mountains of North Carolina and moved northeastward along the middle Atlantic coast, accompanied by heavy rains and high winds.

IV. *May 8, 9, and 10.*—Appeared first in Kansas and moved eastward over Missouri, and thence rapidly northeastward over Illinois, Indiana, Michigan, and southern Lake Huron into Canada. Heavy rains fell in northern Illinois and eastern Iowa, and a belt of lighter rains and brisk winds, from four hundred miles to eight hundred miles in width, attended its progress.

V. *May 10, 11, and 12.*—Like III, this storm seemed to develop among the mountains of North Carolina, passing northeastward over Virginia, eastward over Chesapeake Bay, and again northeastward along the coast to New Brunswick.

VI. *May 12 and 13.*—Traveled from Minnesota very rapidly eastward over the Lakes, Saint Lawrence Valley, and northern New England to Nova Scotia, causing light rains and high winds throughout its course.

VII. *May 13, 14, and 15.*—From the plains of Kansas and Indian Territory this storm-centre moved eastward over southern Missouri, southeastward into Alabama, and then again eastward off the coast, rapidly diminishing in intensity after crossing the Mississippi. Considerable rain fell in all the Southern States, except Texas, but no dangerous winds were reported.

VIII. *May 18, 19, and 20.*—Developing in the southwestern plains, this depression traveled rather slowly northeastward from the Indian Territory over Lakes Michigan and Huron into Canada, attended by rain-belts and fresh to brisk winds throughout the Lake region and western and north-western sections of the country.

IX. *May 21 to 24.*—From Montana this disturbance moved slowly eastward over Dakota, crossing, with somewhat increased velocity, Minnesota, the upper lakes, the Saint Lawrence Valley, Maine, and Nova Scotia, causing, by its slow progress, several days of cloudy and rainy weather over the entire northern portion of the country. It was during its passage over the Northwest that the terrible and destructive tornado swept through Iowa.

X. Two depressions, one slowly descending from the upper Missouri valley, the other moving northward over Kansas and Nebraska, seemed to unite in southern Dakota to form this storm-centre. From Dakota it moved southeastward into Iowa, northeastward to Lake Superior, and thence nearly due east over the Saint Lawrence Valley, Maine, and New Brunswick. Its rain-belts reached nearly the whole country east of the Mississippi, and brisk winds, increasing occasionally to high, were experienced throughout the northern sections.

TEMPERATURE.

The temperatures for the last month were generally lower than for May, 1872, the chief exceptions being Key West, Oswego, and Grand Haven. As compared with the mean May temperatures of a series of years, the thermometric figures for May, 1873, show excess of warmth over northern Lake Michigan, northern Michigan, Lake Huron, southern Ohio, Kentucky, Tennessee, and eastern Massachusetts, but a deficiency of temperature in Kansas, Missouri, Iowa, Minnesota, Wisconsin, Indiana, Illinois, and the Gulf States, Florida, and southeastern Georgia, and generally throughout the Atlantic states and the lower lake region. The regions of minimum rainfall and thermometric maxima nearly correspond.

RAINFALL.

As compared with the mean May rainfalls, the rainfall returns of last May show deficiencies in the northern and western parts of Lake Superior, Lake Michigan, and the entire country stretching from the Saint Lawrence Valley to Maine, and thence over the lower lakes, western New York, and Pennsylvania, West Virginia, Ohio, central Indiana, and southeastern Illinois. Excess of rain occurred in Iowa, Missouri, eastern Kansas, east Tennessee, and also along the Atlantic sea-board, except near Portland, Me., and Savannah, Ga., and a very great excess, from 2.00 to 14.58 inches, over the Gulf States.

RIVERS.

The river reports for the month show a slight decline in the Red and Missouri rivers from the beginning to the middle of the month, after which a decided rise occurs until the end. The Arkansas rose slowly at Little Rock until the 23d, after which it subsided slowly. The Mississippi has alternately risen and fallen; at Saint Paul the water was 7 feet lower on the 19th than on the 31st, at which dates, respectively, it was lowest and highest; at Saint Louis the lowest and highest extremes occurred, respectively, on the 3d and 31st, the difference being 6 feet and 3 inches. At Cairo the river was lowest on the 28th and highest on the 16th, the extremes being about 13 feet. At Memphis the difference between the highest and lowest water for the month has been about 9 feet, having been highest on the 22d and lowest on the 28th. A very rapid rise occurred on the Cumberland, at Nashville, from the 1st to the 4th, after which the water gradually subsided until the 21st, rising again until the 27th, and then again falling until the 31st.

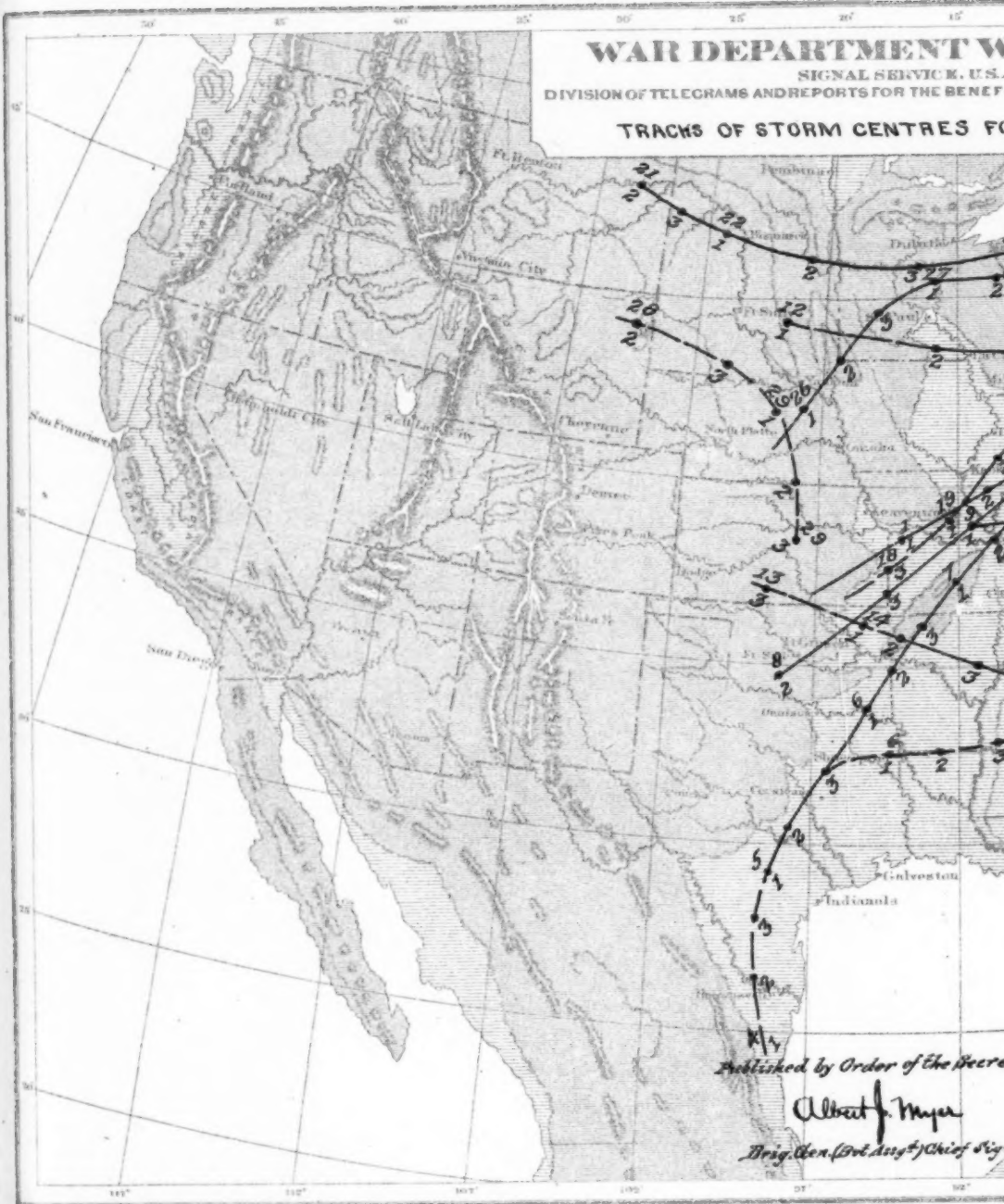
The Ohio was affected by a great swell which traveled from Pittsburg on the 4th to Evansville on the 14th; since then it has fallen almost uninterruptedly. The difference between the highest and lowest water has been 15 feet at Pittsburg, 19 feet at Marietta, 23 at Cincinnati, $7\frac{1}{2}$ at Louisville, and $16\frac{1}{2}$ at Evansville.

The indications are that the Missouri and its tributaries will continue to rise.

WAR DEPARTMENT

SIGNAL SERVICE, U.S.
DIVISION OF TELEGRAMS AND REPORTS FOR THE BENEFIT

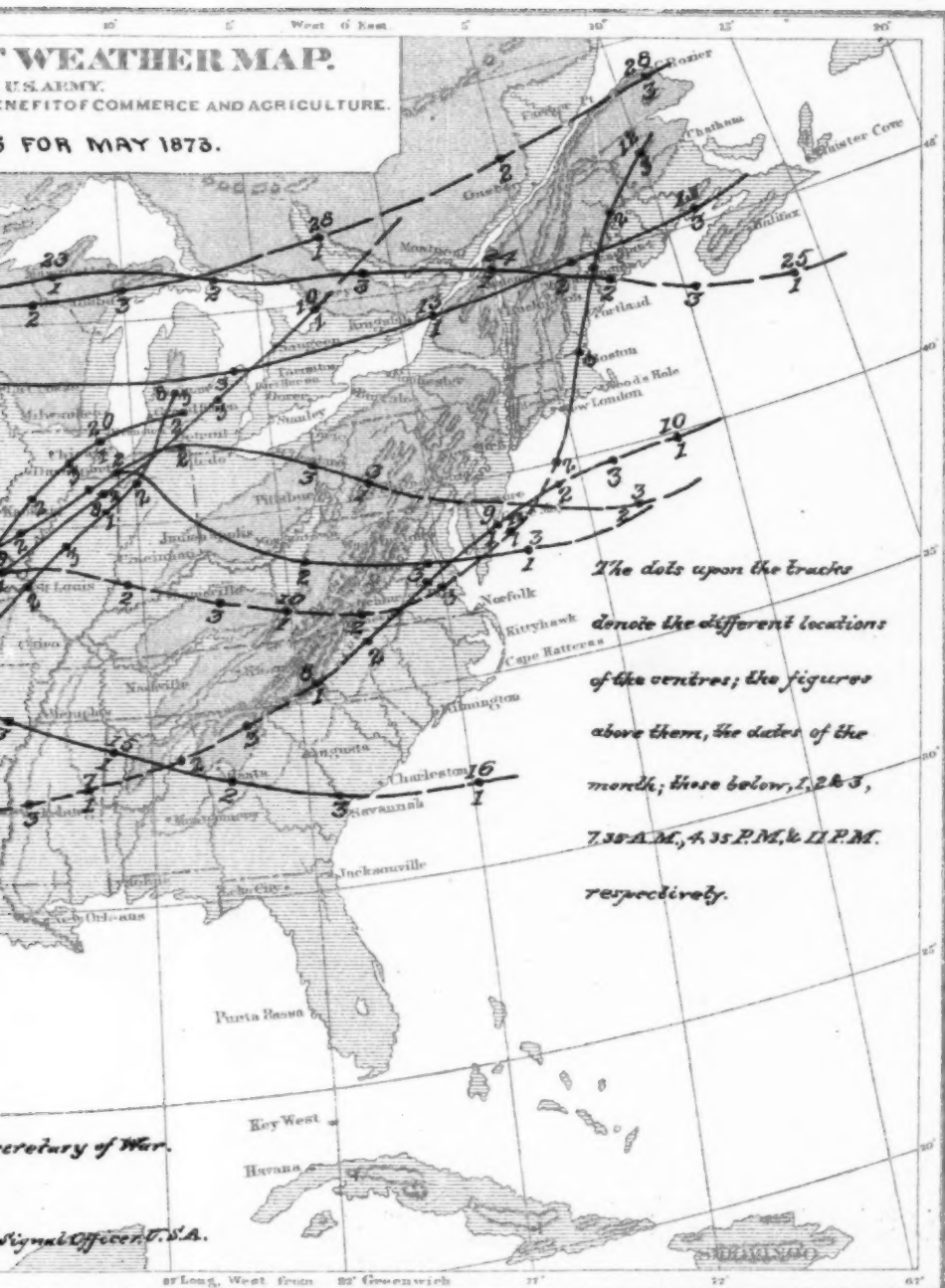
TRACKS OF STORM CENTRES



WEATHER MAP.

U.S. ARMY.
BENEFIT OF COMMERCE AND AGRICULTURE.

FOR MAY 1873.



Secretary of War.

Signal Office U.S.A.

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